

WHAT IS CLAIMED IS

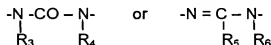
1. A stable o/w microemulsion comprising

(i) between about 0.01 and about 10 wt. % of a concentrate formulation containing:

(a) between about 0.05 and about 25% of at least one active aza compound selected from the group consisting of Amitraz and an aza compound having the formula:



wherein one of R_1 and R_2 is alkenylphenyl, aminophenyl or a sulfur- and/or nitrogen-containing heterocyclic radical containing 3 to 5 carbon atoms in a 4 to 6 membered ring and the other of R_1 and R_2 is the same or is selected from the group consisting of amidosulfuron, phenyl, sulfonylphenyl, phenyloxy and phenyloxysulfonyl where said phenyl radicals and said heterocyclic radicals of R_1 and R_2 are optionally substituted with lower alkyl, halo, haloalkyl, cyano, C_1 to C_4 alkyl ether, C_1 to C_4 ester, carboxyl, ketone amido and amino and X is :



where R_3 , R_4 , R_5 and R_6 are each individually selected from the group consisting of hydrogen, lower alkyl, cyano, and amino,

(b) between about 2 and about 40% of a lipophilic lactam selected from the group consisting of C_8 to C_{18} N-alkyl pyrrolidone, C_8 to C_{18} alkyl caprolactam and a mixture thereof,

(c) between about 2 and about 20% of a moisture scavenging agent selected from the group consisting of a hindered carbopolyimide, a molecular sieve and a mixture thereof,

- (d) between about 10 and about 80% of a lipophilic/hydrophilic mixture of having an overall HLB of 7 to 20, comprising at least two emulsifiers wherein at least one of said emulsifiers in the mixture are non-ionic and
- (e) between 0 and about 15 % of an aromatic oil;

(ii) between about 90 and about 99.99 wt.% water and

(iii) between about 0.01 and about 5 wt.% of a buffering agent selected from the group consisting of a Na, K and/or ammonium salt of a weak acid, a polyalkanol amino C₁ to C₄ alkane, a polyamine salt of a weak acid, a Na, K and/or ammonium salt of a phenol or polyphenol, an amine salt of a weak acid and a mixture of the foregoing buffering agents.

2. The microemulsion of claim 1 wherein the buffering agent is a Na, K or ammonium salt of a weak acid selected from the group consisting of carbonic, malonic, malic, succinic, glutaric, boric acid and mixtures thereof.

3. The microemulsion of claim 2 wherein the buffering agent is a carbonate salt or a mixture of carbonate and bicarbonate salts.

4. The microemulsion of claim 3 wherein said salt is a sodium salt.

5. The microemulsion of claim 1 wherein the aza compound is selected from the group of a sulfuron and amitraz.

6. The microemulsion of claim 1 which contains between about 0.1 and about 2 wt.% of said buffering agent.

7. The microemulsion of claim 1 which contains between about 0.2 and about 1 wt. % of said buffering agent.

8. The microemulsion of claim 1 containing between about 0.02 and about 5.0 wt. % of said concentrate.

9. The microemulsion of claim 8 wherein said concentrate contains between about 8 and about 15% (a); between about 15 and about 30 % (b); between about 7 and about 15% (c) and between about 65 and about 78 % (d).

10. The microemulsion of one of claims 1, 7, 8 or 9 additionally containing between about 5 and about 12 % of an aromatic oil.

11. The microemulsion of claim 1 wherein said aromatic oil is selected from the group of a vegetable oil, an alkyl naphthalene, a hydrogenated alkyl naphthalene or a mixture thereof.

12. The application of the microemulsion of one of claims 1, 6, 7, 9 or 10 in a biocidal amount to livestock by dip or by spray.